



Evaluation Report for Category B, Subcategory 5.0 Application

Application Number: 2009-0938
Application: New MRL for previously assessed TGAI
Product: Fenoxaprop-p-ethyl Technical Herbicide
Registration Number: 21903
Active ingredients (a.i.): Fenoxaprop-p-ethyl, mefenpyr-diethyl (safener)
PMRA Document Number: 1887433

Purpose of Application

The purpose of this application was to establish import maximum residue limits (MRLs) for the crop safener, mefenpyr-diethyl, on wheat and barley and on the rotational crop commodities soybean and canola.

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessment

New residue data for the safener mefenpyr-diethyl in barley and wheat were submitted to support the establishment of MRLs on imported barley and wheat. In addition, a processing study in treated wheat was also reviewed to determine the potential for residues of mefenpyr-diethyl in processed commodities.

Based on the maximum residues observed in crops commodities treated at exaggerated rates, maximum residue limits (MRLs) to cover residues of mefenpyr-diethyl on crops and processed commodities will be established as shown in Table 1. Residues of mefenpyr-diethyl in processed commodities not listed in Table 1 are covered under established MRLs for the raw agricultural commodities (RACs).

There is no expectation of residues of mefenpyr-diethyl on rotational crop commodities treated at rates up to 25 g safener/ha. Therefore, there is no need to recommend import MRLs for mefenpyr-diethyl on the rotational crop commodities soybean and canola.

Table 1 Summary of field and processing data used to establish maximum residue limits (MRLs)

Commodity	Application method/ Total application rate	PHI (days)	Residues (ppm)		Experimental Processing Factor	Currently Established MRL	Recommended MRL
			Min	Max			
Barley	Foliar application 100 g safener/ha	53-65	<0.02	<0.04	None	None	0.05 ppm
Wheat	Foliar application 100 g safener/ha	53-71	<0.02	<0.02	None	None	0.05 ppm

Following the review of all available data, an MRL of 0.05 ppm for barley and wheat is recommended to cover residues of mefenpyr-diethyl. Residues of mefenpyr-diethyl on these crops at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors. An import MRL for soybean and canola is not required because residues in these rotation crop commodities are not expected.

Environmental Assessment

An environmental assessment was not required for this application.

Value Assessment

A value assessment was not required for this application.

Conclusion

The PMRA conducted an evaluation of the subject application and recommends an import MRL of 0.05 ppm for mefenpyr-diethyl on wheat and barley. An import MRL for mefenpyr-diethyl on soybean and canola is not required because residues in these rotational crop commodities are not expected.

References

PMRA Document Number: 1732871
 Reference: 2000, An analytical method for the determination of residues of AE F107892 (mefenpyr-ethyl) and its metabolites in wheat and barley by gas chromatography using mass selective detection, Data Numbering Code: 7.2.1

PMRA Document Number: 1732872
 Reference: 2001, Mefenpyr-diethyl: Magnitude of residues in wheat grain and processed commodities following application of AE F130060 00 WG75 A1 and AE F107892 00 EC10 at an exaggerated rate, USA, 2001, Data Numbering Code: 7.2.1, 7.4.1, 7.4.2, 7.4.5, 7.4.6

PMRA Document Number: 1732873
 Reference: 1997, At-harvest residues of Hoe 107892 and metabolites in or on wheat (grain, straw, forage and hay) following a single application of Hoe 107892 EC at 50 or 100 g ai/ha - USA, 1995, Data Numbering Code: 7.2.1, 7.4.1, 7.4.2, 7.4.6

PMRA Document Number: 1732874
 Reference: 1997, At-harvest residues of Hoe 107892 and metabolites in wheat (grain, straw, forage and

hay) following a single application of Hoe 107892 EC at 50 or 100 g safener/ha, USA, 1996, Data Numbering Code: 7.2.1, 7.4.1, 7.4.2, 7.4.6

PMRA Document Number: 1732875
Reference: 1997, At-harvest residues of mefenpyr-ethyl and metabolites in or on barley (grain, straw, forage and hay) following a single application of mefenpyr-ethyl EC at 50 or 100 g ai/ha, USA, 1995, Data Numbering Code: 7.2.1, 7.2.5, 7.4.1, 7.4.2, 7.4.6

PMRA Document Number: 1732878
Reference: 2001, An analytical method for the determination of residues of AE F107892 (mefenpyr-diethyl) and its metabolites in wheat and barley by gas chromatography using mass selective detection (report supplement to EPA MRID 45457401), Data Numbering Code: 7.2.2

PMRA Document Number: 1732883
Reference: 1997, Code: AE F109453 storage stability of AE F109453 (metabolite of mefenpyr-diethyl) in barley straw and shoot over a storage period of 30 months, Data Numbering Code: 7.3

PMRA Document Number: 1732884
Reference: 1997, Storage stability of AE F107892 and its metabolites AE F113225 and AE F094270 in barley (shoot and straw), Data Numbering Code: 7.3

PMRA Document Number: 1732897
Reference: 2007, Mefenpyr 23EC - magnitude of the residue in field rotational crops - soybean and field corn, Data Numbering Code: 7.4.3

PMRA Document Number: 1779676
Reference: 1997, Radiolabelled mefenpyr diethyl AEF107892-14C - aged residue in wheat - radiovalidation of the residue analytical method AL001792-5, Data Numbering Code: 7.2.3

PMRA Document Number: 1779677
Reference: 1997, Determination of diethyl 1-(2,4-dichlorophenyl)-5-methyl-2-pyrazoline-3,5-dicarboxylate (Hoe 107892) and its metabolites Hoe 113225, Hoe 109453 (hydrolysates) and Hoe 094270 in cereal grain, straw and shoot following methylation by GC/MS, Data Numbering Code: 7.2.3

PMRA Document Number: 1779678
Reference: 1998, Mefenpyr-diethyl analytical grade code : AE F107892 independent laboratory validation (ILV) for the determination of diethyl 1-(2,4-dichlorophenyl)-5-methyl-2-pyrazoline-3,5-dicarboxylate (AE F107892) and its metabolite AE F113225, AE F109453 (hydrolysates) and AE F094270 in cereal grain, shoot and straw, Data Numbering Code: 7.2.3

PMRA Document Number: 1779679
Reference: 2001, PAM I multiresidue protocol testing for mefenpyr-diethyl and metabolites (AE F113225, AE F109453, and AE F094270), Data Numbering Code: 7.2.4

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